

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference E-2137/04	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IB2004/001142	International filing date (day/month/year) 15/04/2004	(Earliest) Priority Date (day/month/year) 18/04/2003
Applicant BELLCO S.P.A.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the title,☒

the text is approved as submitted by the applicant.

☐

the text has been established by this Authority to read as follows:

5. With regard to the abstract,☒

the text is approved as submitted by the applicant.

☐

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒

as suggested by the applicant.

☐

as selected by this Authority, because the applicant failed to suggest a figure.

☐

as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 9, 18-23
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8,10

Device for arterialization comprising at least two catheters and a (three way) connection between said catheters.

2. claims: 11-17

Machine for regeneration comprising at least two catheters, an extracorporeal circuit to connect the catheters and an oxygenation device.

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A61M1/36 A61M39/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 800 374 A (BEYERSDORF FRIEDHELM) 1 September 1998 (1998-09-01) column 2, line 60 - column 3, line 21; figures	1-4, 6-8, 10
X	EP 0 364 799 A (BGH MEDICAL PRODUCTS) 25 April 1990 (1990-04-25) column 11, line 46 - line 51; figures	1-8, 10, 11
A	DE 198 23 146 C (PAJUNK HEINRICH ; PAJUNK HORST (DE)) 8 July 1999 (1999-07-08) column 2, line 54 - column 3, line 10; figures	1-4
A	US 4 865 583 A (TU HO C) 12 September 1989 (1989-09-12) column 4, line 37 - column 5, line 12; figures	1-4
----- -/--		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

24 February 2005

Date of mailing of the international search report

03 MAR 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Kousouretas, I

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 950 230 A (KENDELL LAMAR C) 21 August 1990 (1990-08-21) abstract; figures -----	1-4
A	US 5 449 342 A (HIROSE TERUO ET AL) 12 September 1995 (1995-09-12) column 5, line 39 - line 50; figures -----	1,5
X	US 2002/077581 A1 (DAVIDNER ALAN ET AL) 20 June 2002 (2002-06-20) paragraphs '0024! - '0033!; figures -----	11-15
A	EP 1 132 101 A (NIKKISO COMPANY, LTD; OHTA, TOMIO) 12 September 2001 (2001-09-12) the whole document -----	11-17

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5800374	A	01-09-1998	DE 4003425 A1	08-08-1991
			DE 59102643 D1	29-09-1994
			WO 9112036 A1	22-08-1991
			EP 0513071 A1	19-11-1992
			ES 2059114 T3	01-11-1994
			JP 5504078 T	01-07-1993
EP 0364799	A	25-04-1990	US 5069662 A	03-12-1991
			AT 121952 T	15-05-1995
			CA 1333872 C	10-01-1995
			DE 68922456 D1	08-06-1995
			DE 68922456 T2	25-01-1996
			EP 0364799 A2	25-04-1990
			ES 2075022 T3	01-10-1995
			JP 2193676 A	31-07-1990
			JP 2831056 B2	02-12-1998
			US 5411479 A	02-05-1995
DE 19823146	C	08-07-1999	DE 19823146 C1	08-07-1999
			DE 59908683 D1	08-04-2004
			EP 0958781 A1	24-11-1999
			ES 2213945 T3	01-09-2004
US 4865583	A	12-09-1989	NONE	
US 4950230	A	21-08-1990	AT 116136 T	15-01-1995
			AU 1681388 A	10-10-1988
			CA 1316059 C	13-04-1993
			DE 3852638 D1	09-02-1995
			DE 3852638 T2	18-05-1995
			EP 0354915 A1	21-02-1990
			JP 2502882 T	13-09-1990
			JP 2772007 B2	02-07-1998
			WO 8806895 A1	22-09-1988
US 5449342	A	12-09-1995	FR 2681789 A1	02-04-1993
			JP 2800585 B2	21-09-1998
			JP 5200110 A	10-08-1993
US 2002077581	A1	20-06-2002	NONE	
EP 1132101	A	12-09-2001	CA 2351847 A1	02-06-2000
			EP 1132101 A1	12-09-2001
			US 6626857 B1	30-09-2003
			CN 1326367 T	12-12-2001
			WO 0030702 A1	02-06-2000